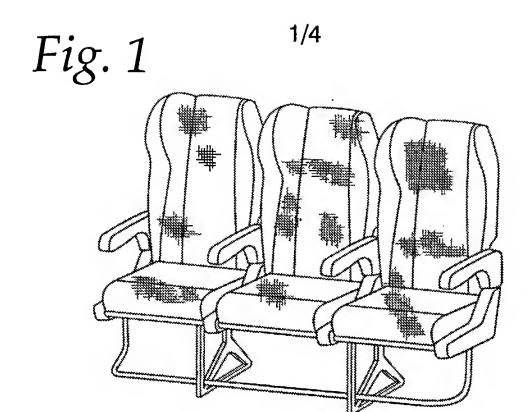
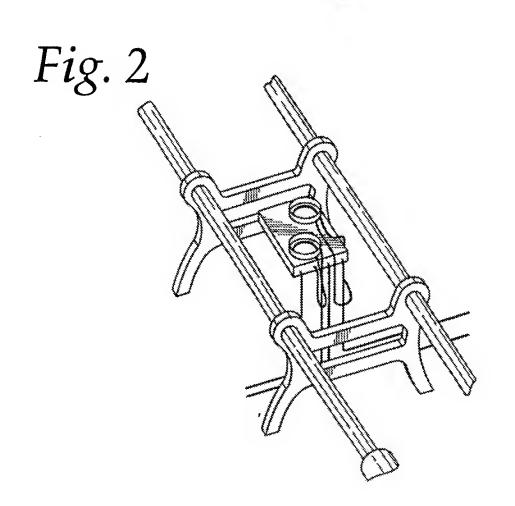
WO 2005/094290 PCT/US2005/010289





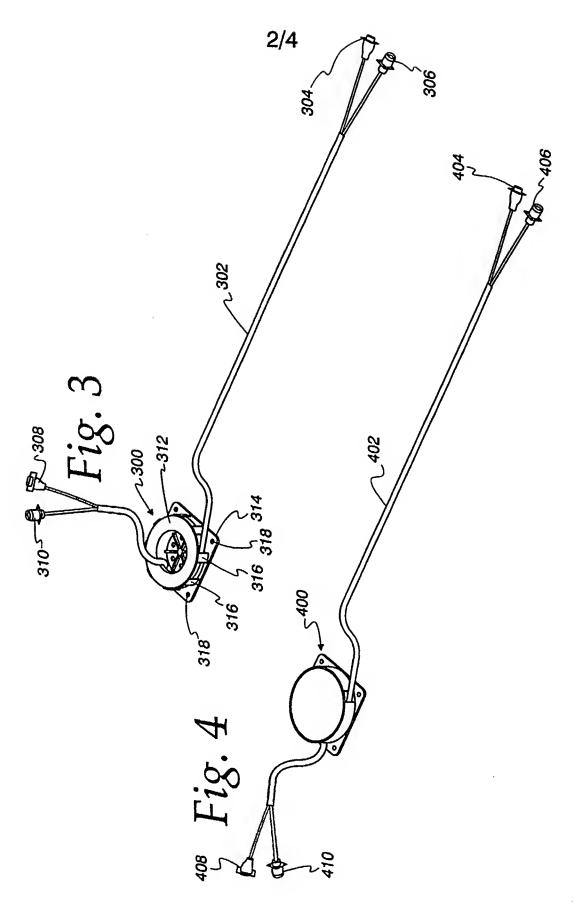
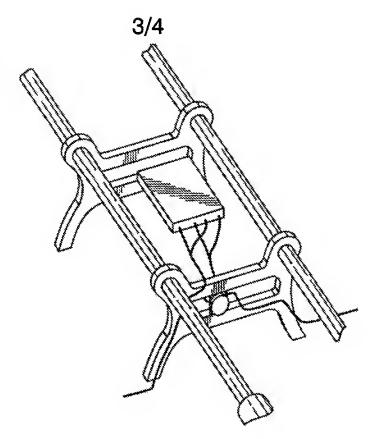
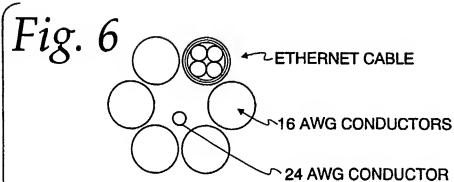


Fig. 5





CONDUCTORS

1 @ 24 AWG 19/36; LITZ WIRE; WHITE

5 @ 16 AWG 19/29; LITZ WIRE

COLORS: BLACK, RED, YELLOW, BLUE, GREEN

1 @ 26 AWG, 100-OHM ETHERNET CABLE

CABLING: PLANETARY, ROUND AS POSSIBLE

SHIELD: N/A

**PERFORMANCE** 

**VOLTAGE RATING - 600 VAC** 

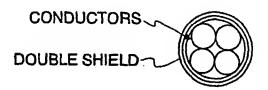
TEMPERATURE - 200C

FLAMMABILITY - SHALL PASS FAA FAR 25.869

## 4/4

Fig. 7

26 AWG, 100-PHM ETHERNET CABLE



CONDUCTOR

AWG 26; 19x38: LITZ WIRE

RESISTANCE: 42.8 OHMS/1000FT

4 CONDUCTORS/4 COLORS WRAPPED AROUND (OPT) FILLER RED, BLUE, YELLOW, GREEN

**DOUBLE SHIELDED:** 

MATERIAL: 38 AWG TINNED COPPER INNER SHIELD MINIMUM 90% COVERAGE OUTER SHIELD MINIMUM 85% COVERAGE

BINDER:

USE PTFE BINDER BETWEEN CONDUCTORS AND SHIELD AND OUTSIDE SHIELD.

CABLE CHARACTERISTICS (DESIRED)

DIFFERENTIAL IMPEDENCE: 100 =/-10 OHMS

CAPACITANCE (NOM): 13 pF/FT

**VELOCITY OF PROPOGATION (NOM): 80%** 

ATTENTUATION (MAX): 3.2 dB/100m @ 1MHz (1.0 dB/100FT) 10.5 dB/100m @ 10MHz (3.2 dB/100FT)

36.0 dB/100m @ 100MHz (11.0 dB/100FT)

**NEAR END CROSS TALK** 

 $1 \leftarrow f \leftarrow 100 \text{ MHZ: NEXT(f)} >= 64-15 \text{LOG}_{10}(f/0.772)(dB)$ 

STRUCTURAL RETURN LOSS

1 <= f <= 20 MHZ: 23 dB

20 < f <= 100 MHZ: SLRf >= SRL20 - 10LOG10(f/20)(dB)

FLAMMABILITY - SHALL PASS FAA FAR 25.869

TEMPERATURE - 200C

**VOLTAGE RATING - 600 VAC**